

SCREENING SITE INSPECTION REPORT
FOR
FORD MOTOR CO OHIO TRUCK PLT (SIA)
AVON LAKE, OHIO
U.S. EPA ID: OHD020626669
SS ID: NONE
TDD: F05-9007-012
PAN: FOH0646SA

US EPA RECORDS CENTER REGION 5



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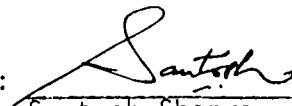
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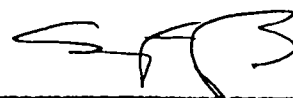
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1. INTRODUCTION

Ecology and Environment, Inc. (E & E), Field Investigation Team (FIT) was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) of the Ford Motor Co Ohio Truck Plt (SIA) (FMC) site under contract number 68-01-7347. C.C. Johnson and Malhotra, P.C. (CCJM), a subcontractor to E & E under the above contract, was responsible for conducting this investigation.

The FMC site was initially discovered by U.S. EPA on August 18, 1980, when Ford Motor Company (Ford) filed a Notification of Hazardous Waste Activity form, pursuant to section 3001 of the Resource Conservation and Recovery Act (RCRA). The notification was filed on August 18, 1980. The site was subsequently evaluated in the form of a preliminary assessment (PA). The PA was prepared by Pam Wicks of the Ohio Environmental Protection Agency (OEPA) and is dated May 6, 1985 (U.S. EPA 1985).

FIT prepared an SSI work plan for the FMC site under technical directive document (TDD) F05-8706-280, issued on June 19, 1987. The SSI work plan was approved by U.S. EPA on June 21, 1990. The SSI of the FMC site was conducted on February 28, 1991, under TDD F05-9007-012 issued on August 2, 1990.

The FIT SSI included an interview with site representatives, a reconnaissance inspection of the site, collection of nine soil samples, and photographing current site conditions and sampling locations.

The purposes of an SSI have been stated by U.S. EPA in a directive outlining Pre-Remedial Program strategies. The directive states:

All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS [Hazard Ranking System] score, 2) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgement factors, the site will then either be designated as NFRAP [no further remedial action planned], or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA [Resource Conservation and Recovery Act] Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.

The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive a listing SI. (U.S. EPA 1988)

U.S. EPA Region V has also instructed FIT to identify sites during the SSI that may require removal action to remediate an immediate human health or environmental threat.

2. SITE BACKGROUND

2.1 INTRODUCTION

This section presents information obtained during the SSI work plan preparation, the site representative interview, and the reconnaissance inspection of the site.

2.2 SITE DESCRIPTION

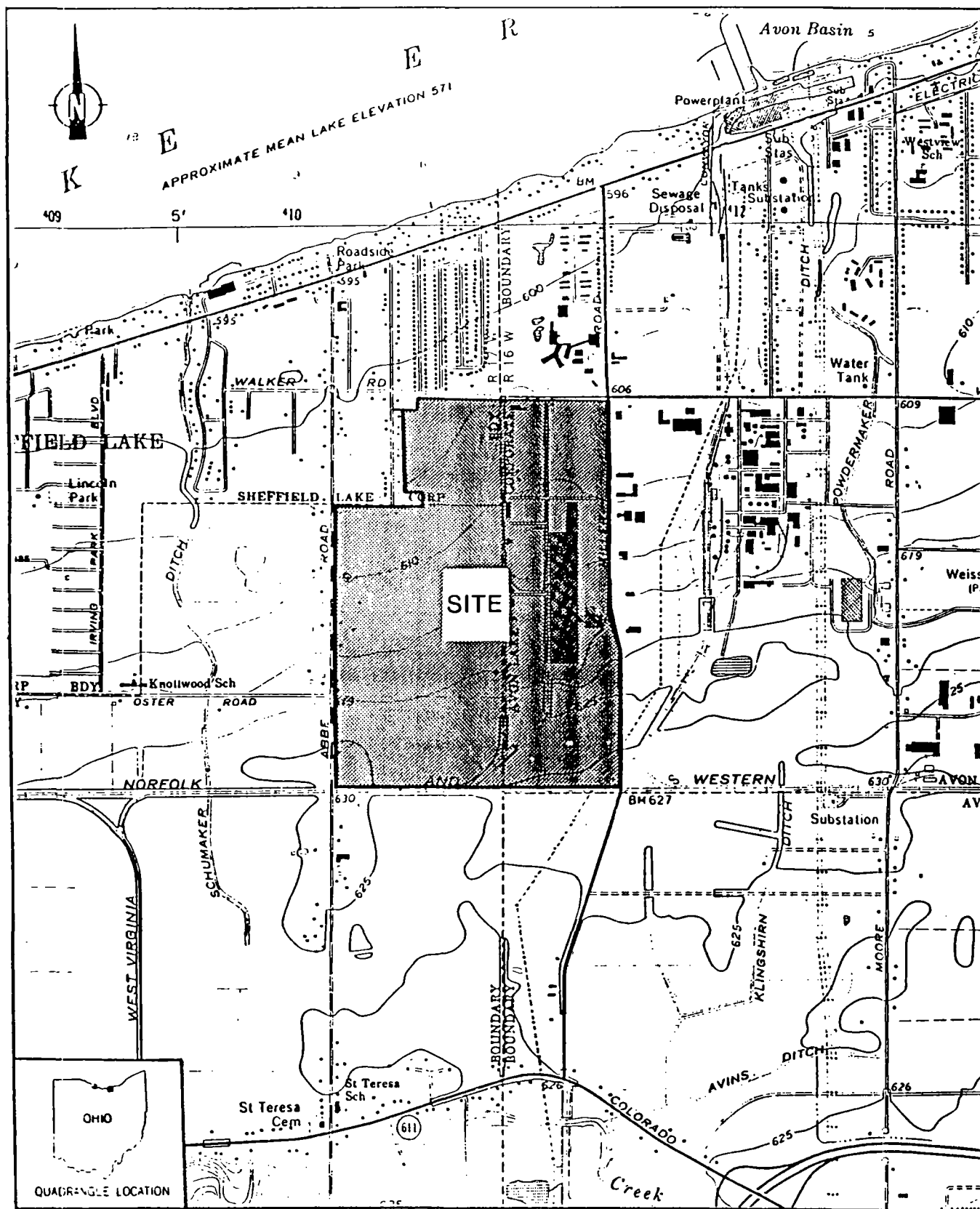
The FMC site is a 412-acre active truck assembly and painting facility. The site is located at 650 Miller Road, Avon Lake, Lorain County, Ohio (T.7N., R.16W.) (see Figure 2-1 for site location). The site is located approximately 9/10 miles south of Lake Erie. Land in the area of the site is used for commercial, industrial, residential, and agricultural purposes.

A 4-mile radius map of the FMC site is provided in Appendix A.

2.3 SITE HISTORY

Ford has operated truck assembly and painting operations on-site since 1975. The site was owned and operated by Fruehauf Corporation from 1946 to 1975. Fruehauf Corporation manufactured semitrailer bodies at the site (Molnar, Straub, and Waskiewicz 1991). The type and quantity of wastes generated during this period are not known. Ownership and operation at the FMC site prior to 1946 is not known.

In 1975, Ford purchased the site from Fruehauf Corporation and began its truck assembly and painting operations. Ford used the existing buildings and also constructed more as part of a plant expansion program (Molnar, Straub, and Waskiewicz 1991).



SOURCE: USGS, Avon, OH Quadrangle, 7.5 Minute Series, 1963. Photorevised 1979.

SCALE
0 1/2 1 MILE

FIGURE 2-1 SITE LOCATION.

On-site operations include electroplating, assembling, and painting van bodies (Molnar 1991). Raw materials used for current operations on-site include steel, paints, solvents, sealers, naphtha blends, ferric chloride, sulfuric acid, sodium hydroxide, sodium bisulfite, and nitric acid (Molnar 1991; Molnar, Straub, and Waskiewicz 1991).

Hazardous waste generated on-site includes wastewater treatment sludges from industrial painting (F018), paint residues from industrial painting (F017 and D002), spent non-halogenated solvents (F001, F003, and F005), and waste commercial chemical products (xylene [U239] and toluene [U22]) (Ford 1981; Molnar, Straub, and Waskiewicz 1991).

In 1990 the waste generated from various assembly and painting activities on-site included 760,125 pounds of liquid waste purge solvents (containing xylene methyl isobutyl ketone [MIK]), 1,238,472 pounds of waste paints and solvents (containing MIK), 62,000 pounds of ignitable liquid waste sealer solvent sludge (containing xylene and toluene), 9,900 pounds of oily sludge (containing xylene and MIK), 12,860 pounds of E-Coat sludge (containing lead), and 36,000 pounds of waste automotive sealer (containing lead) (Molnar 1991). FIT file information does not indicate the quantities of hazardous waste generated in previous years.

Two on-site cement-lined lagoons were used for the treatment and storage of wastes generated by the electroplating operations on-site. These lagoons were closed in 1985 and 1986. The sludge was removed from the lagoons, the concrete was broken, and the lagoons were filled with soil. The lagoon area is currently paved. Plant buildings and a wastewater treatment plant (WWTP) are located above the former lagoons (Molnar, Straub, and Waskiewicz 1991).

A stormwater pond was located in the northeast corner of the site. The pond was closed in 1985 (Molnar, Straub, and Waskiewicz 1991). That area is now covered with grass. Runoff water from the site is currently collected in a pond located on the west side of the site.

Waste purge solvents are recycled at an off-site location. Waste paints and solvents are blended off-site for a fuels program. The E-Coat sludge and waste automotive sealer are shipped off-site for treatment and disposal. Waste sealer solvent sludge and oily sludge are transported off-site to a disposal facility (Molnar 1991; Molnar,

Straub, Waskiewicz 1991). The waste generated is stored in two on-site underground storage tanks or in 55-gallon drums, and then shipped off-site for treatment and/or disposal (Molnar, Straub, Waskiewicz 1991). Drury Brothers, Petro-Chem Processing, Chem Freight, Automm Industries, Nave, Inc., and Nortru, Inc., are the listed transporters of the hazardous waste generated on-site (Molnar 1991).

Wastewater from the WWTP is discharged into Avon Lake sanitary sewer system. Discharge from the WWTP is regulated by a permit issued by the City of Avon Lake. The permit regulates pH, cadmium, chromium, zinc, nickel, copper, lead, and cyanide levels in the discharged wastewater. The discharged wastewater was sampled on several occasions. Analysis of samples detected cadmium, chromium, copper, lead, nickel, zinc, and cyanide above allowable limits (Sanford 1985). The permit (number MF-101) is effective from March 1, 1989, to March 1, 1994 (Molnar 1991).

Three spills occurred on-site in 1979. On April 24, 1979, 30 gallons of hydraulic fluid spilled from a 55-gallon drum. Approximately 10 gallons of the fluid was recovered by spill control measures. The rest drained into an underground storm sewer and was discharged into Lake Erie (Merta 1979a). The second spill occurred on July 13, 1979, when 200 gallons of E-Coat resin overflowed from a tank while the tank was being filled by a supplier. Approximately 10 gallons of resin entered the sewer system and the remainder was recovered (Merta 1979). The third spill occurred on August 9, 1979, when an unknown amount of petroleum naphtha overflowed from a tank while the tank was being filled by a supplier (Merta 1979b). Ford did try to clean up the spill, but the exact method of cleanup is not known. Ford notified OEPA about each of the spills. After these spills occurred, Ford developed a pollutant spill prevention plan for the site, and no further spills have been reported (U.S. EPA 1985).

On April 6, 1981, Ford applied for a RCRA permit for the site. OEPA granted the permit. However, Ford requested a withdrawal of the permit on July 20, 1981, after U.S. EPA deleted hazardous waste number F018 (wastewater treatment sludge from industrial painting) from its list of hazardous wastes (Merta 1981). The permit withdrawal was

granted, and since then OEPA has been conducting regular inspections of the site for compliance with U.S. EPA RCRA hazardous waste regulations (U.S. EPA 1985).

On February 10, 1982, Helen Takacs of OEPA, Division of Hazardous Material Management, conducted an inspection of the site. During this inspection, it was found that operations at the FMC site met the criteria for the site to be considered a RCRA hazardous waste generator. Operations at the site were in compliance with State of Ohio hazardous waste regulations, with the exception that some required information was not included in the site contingency plan (Takacs 1982).

On April 25, 1985, an inspection was conducted by Mark Bergman of OEPA, for compliance with state and federal regulations for the handling of hazardous wastes. The operation of the storage lagoons was found to be in violation of generator, and treatment, storage, and disposal of hazardous waste regulations. The exact nature of the violations is not known (Bergman 1985).

On-site operations were found to be in violation of electroplating wastewater pretreatment standards on five different occasions between August 19, 1984, and March 23, 1985. These violations pertain to the presence of nickel, zinc, and total metals detected above allowable limits in the wastewater treatment plant discharge (Kausek 1985; Sanford 1985; and Wiacek 1985).

No other regulatory or remedial response activities have been undertaken at the FMC site (Molnar, Straub, and Waskiewicz 1991).

3. SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

3.1 INTRODUCTION

This section outlines procedures and observations of the SSI of the FMC site. Individual subsections address the site representative interview, reconnaissance inspection, and sampling procedures.

Rationales for specific FIT activities are also provided. The SSI was conducted in accordance with the U.S. EPA-approved work plan with the following exceptions. A total of nine soil samples were collected instead of six soil samples and two sediment samples, as proposed in the work plan. Two sediment samples were not collected from the former stormwater pond because the pond was closed and the area was filled. FIT could not collect sediment samples from the current stormwater pond because the pond was too deep and inaccessible. Instead of the two potential background soil samples proposed in the work plan, only one potential background soil sample was collected. FIT considered one background sample to be adequate to characterize wastes present on-site.

The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the FMC site is provided in Appendix B.

3.2 SITE REPRESENTATIVE INTERVIEW

Nahid Brown, Mathew Joseph, and Charles Onyezia of CCJM conducted an interview with Anne B. Molnar, Plant Engineer, Ford; Ron Straub, Plant Manager, Ford; and Kathy Waskiewicz, Environmental Engineer, Principal Facility, Ford, Dearborn, Michigan, on February 28, 1991. The interview was conducted in a conference room at the FMC site. The

interview began at 9:00 a.m. The interview was conducted to gather information that would aid FIT in conducting SSI activities.

3.3 RECONNAISSANCE INSPECTION

Following the site representative interview, FIT conducted a reconnaissance inspection of the FMC site and surrounding area in accordance with E & E health and safety guidelines (E & E 1987). The reconnaissance inspection began at 10:30 a.m. on February 28, 1991, and included a walk-through of the site to determine appropriate health and safety requirements for conducting on-site activities and to make observations to aid in characterizing the site. FIT also determined sampling locations during the reconnaissance inspection. FIT was accompanied by Molnar and Waskiewicz during the reconnaissance inspection.

Reconnaissance Inspection Observations. The FMC site is located in Avon Lake, Ohio, approximately 9/10 miles south of Lake Erie. Walker Road forms the northern boundary of the site, Abbe Road forms the western boundary of the site, Norfolk and Western Railroad tracks form the southern boundary of the site, and Miller Road forms the eastern boundary of the site. The site is surrounded by a fence. The main entrance to the site is from Abbe Road on the west (see Figure 3-1 for site features). A paved road runs through the site, from the main entrance to an emergency gate on the east side of the site. Three more entrance gates are located on the west side of the site, and one on the north side of the site. There is a security guard at the main entrance gate at all times (Molnar, Straub, and Waskiewicz 1991).

The paved road leads east, toward the body shop, paint shop, the WWTP, and other on-site facilities. The body shop and paint shop share a large building that covers much of the east and central portions of the area north of the paved road. The paint shop occupies the west wing of the building, and the body shop occupies the east wing of the building. A power house is located approximately 50 yards north of the southwest corner of the body shop. There are two "set down" areas located south of the body shop and one located north of it. These are used for temporary storage of trucks and van parts until used in production (Molnar, Straub, and Waskiewicz 1991). The area between

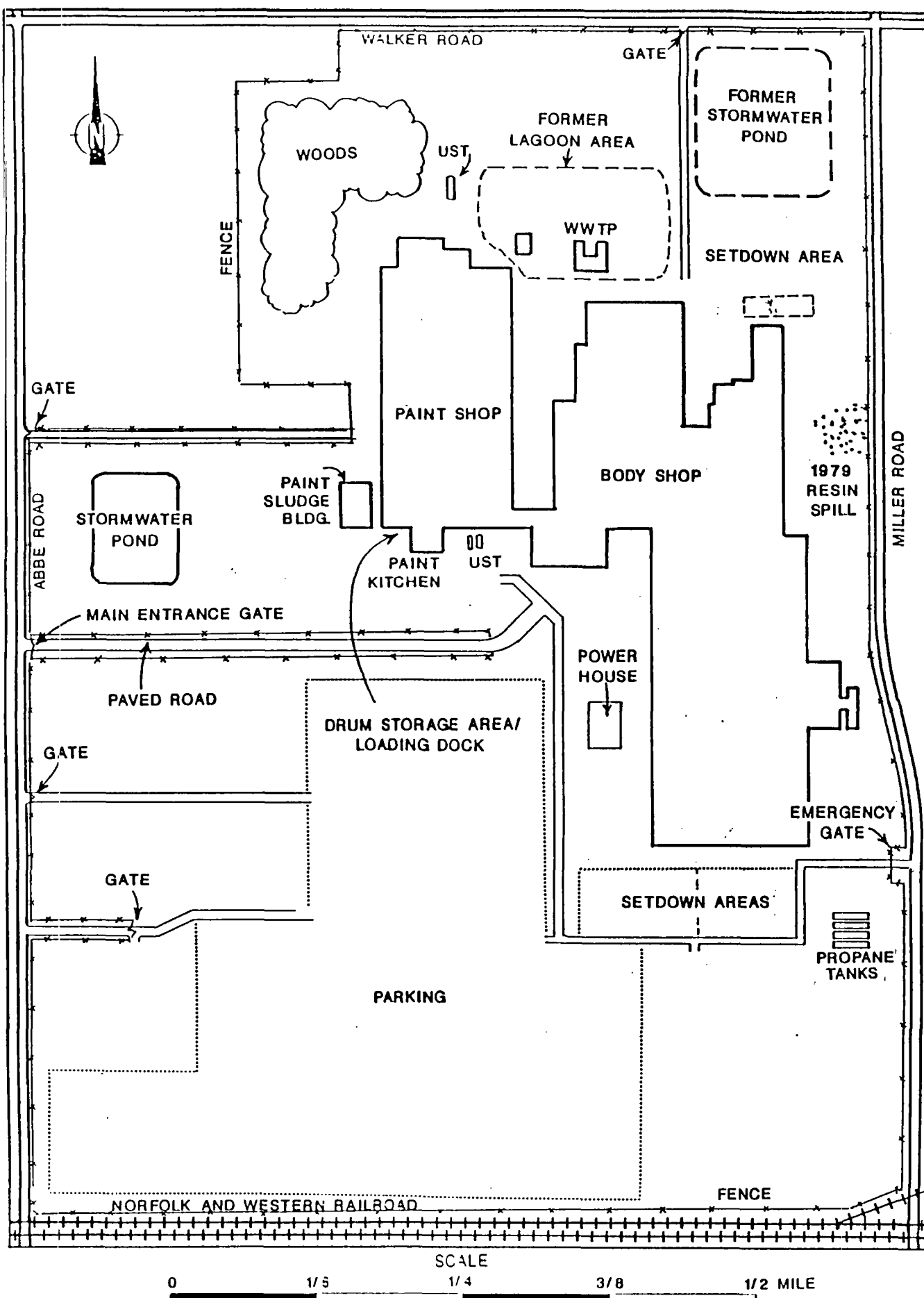


FIGURE 3-1 SITE FEATURES

Miller Road and the east side of the body shop is the location of the resin spill that occurred in 1979. This area is now covered with gravel and asphalt. A former stormwater pond was located in the northeast corner of the site. This pond was closed in 1986 (Molnar, Straub, and Waskiewicz 1991) and now the area is covered with grass.

The paint shop is located west of the body shop. A paint sludge building is located west of the paint shop. This building is used for storing drums containing waste paint sludge. At the south end of the paint shop is a paint kitchen where paints and raw materials are mixed before use. West of the paint kitchen are wooden racks. Drums are placed on the racks before loading onto trucks for shipment to off-site locations. South of these wooden racks is the loading dock area. On the east side of the paint kitchen are two 12,000-gallon underground storage tanks (USTs). One of these is used for storing purged solvent, while the other is used for storing waste paints. Another UST is located north of the the paint shop. This UST stores diesel fuel (Molnar, Straub, and Waskiewicz 1991) (see Appendix C for tank contents and capacities at the FMC site).

North of the body shop and paint shop is the former lagoon area, which is now the location of the WWTP (Molnar, Straub, and Waskiewicz 1991). The area is currently covered with an asphalt drive, buildings, and the WWTP.

North of the entrance gate, on the west side of the site, is a stormwater pond where surface water runoff from the site is collected. A parking lot is located between the stormwater pond and the paint sludge building. The area between the stormwater pond and the parking lot is covered with grass.

Most of the area south of the paved road is covered by three asphalt-covered parking lots. A number of aboveground storage tanks, used for storing raw materials, are located on-site. These include four propane tanks located south of the emergency gate, near the setdown areas.

FIT photographs from SSI of the FMC site are provided in Appendix D.

3.4 SAMPLING PROCEDURES

Samples were collected by FIT at locations selected during the reconnaissance inspection to determine whether U.S. EPA Target Compound List (TCL) compounds or Target Analyte List (TAL) analytes were present at the site. The TCL and TAL are included with corresponding quantitation/detection limits in Appendix E.

On February 28, 1991, FIT collected nine on-site soil samples, including a potential background sample. Site representatives were offered a portion of the on-site samples, and the offer was accepted.

Soil Sampling Procedures. Soil sample S1 was collected at a depth of 3 feet from a location in the northeast corner of the FMC site (see Figure 3-2 for soil sampling locations). Sample S1 was collected from the southeast edge of the former stormwater pond area. The sample consisted of firm dark brown clay. Surface soil sample S2 was collected at a depth of 2 to 6 inches, from an area near the loading dock, south of the paint shop. The sample was collected in an area where drums of waste materials are loaded onto trucks for shipment to off-site locations. The sample consisted of light brown clay. Surface soil sample S3 was collected approximately 50 feet west of sampling location S2, near the drum storage area. Sample S3 was collected at a depth of 2 to 6 inches. The sample consisted of brown clay. Surface soil sample S4 was collected at a depth of 2 to 6 inches from a location between the power house and the body shop, in an area where the vegetation appeared to be different from the other on-site areas. The sample was brown and consisted of clay. Soil sample S5 was collected at a depth of 2 1/2 feet from a location in the area of the two former lagoons, north of the WWTP. The sample consisted of dry clay. Surface soil sample S6 was collected adjacent to the southeast corner of the former stormwater pond. The sample was collected at a depth of 2 to 6 inches, from a location near a construction pile. The sample consisted of clay loam with pebbles. Surface soil sample S7 was collected from the southeast portion of the former lagoon area. The sample was collected at a depth of 2 to 6 inches, and consisted of clay. Surface soil sample S9 was collected at a depth of 2 to 6 inches, from a location east of the stormwater detention pond. The sample consisted of saturated clay with pebbles, gravel, and rootlets.

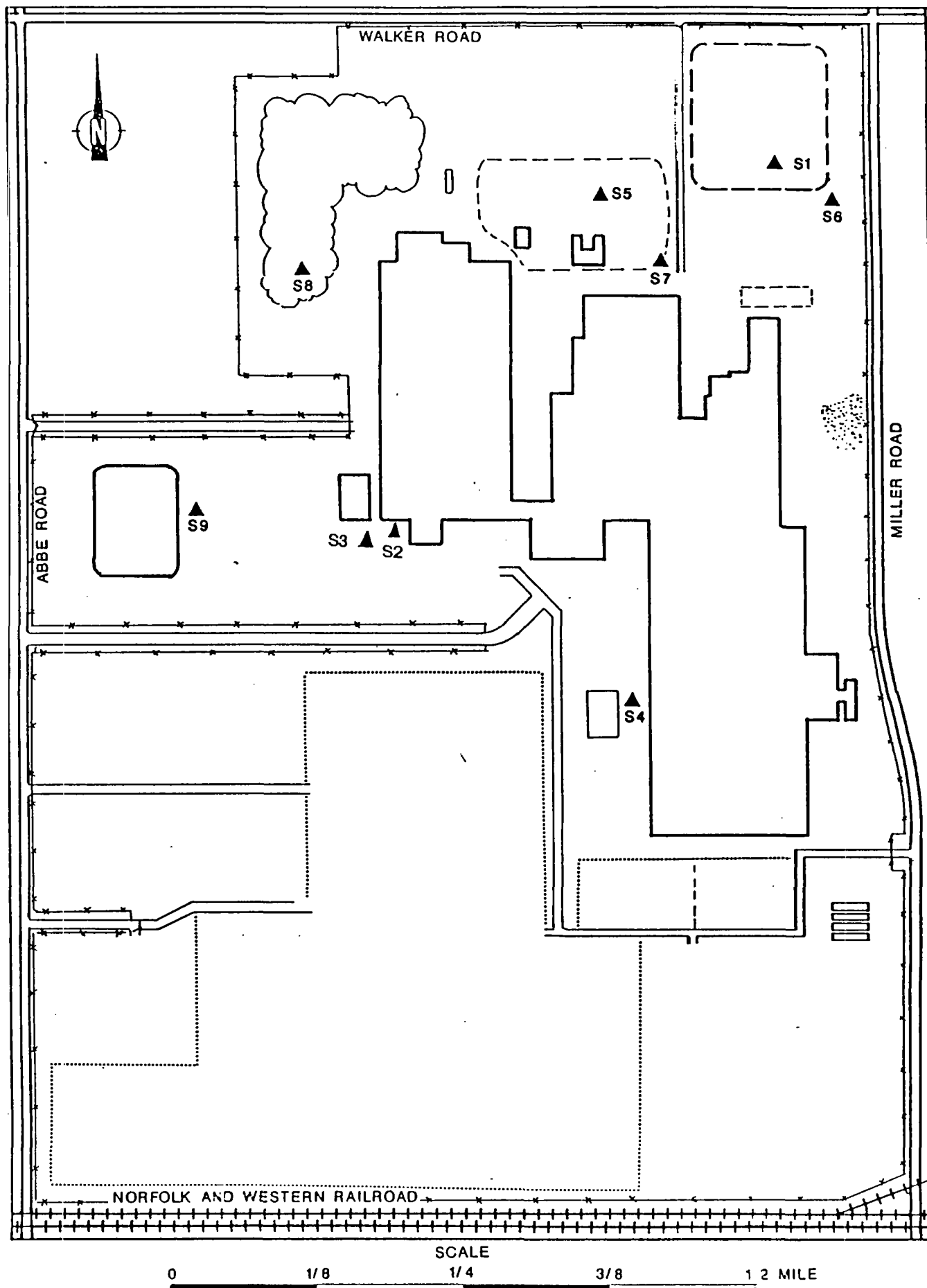


FIGURE 3-2 SOIL SAMPLING LOCATIONS

Surface soil sample S8 was collected as a potential background sample, from a location northwest of the paint shop. This area was purchased by Ford in 1988 and has not been used at anytime (Molnar, Straub, and Waskiewicz 1991). This sample was collected to assess the representative chemical composition of the soil in the area of the FMC site. The sample consisted of brown clay. Soil samples S1 and S5 were subsurface samples, collected using a hand auger. Soil samples S2 through S4 and S6 through S9 were surface samples, collected using a garden trowel.

The sample portions collected for volatile organic analysis were transferred directly to sample bottles. The remaining sample portions were placed into a stainless steel bowl, mixed, and then transferred to the appropriate sample bottles, using a stainless steel spoon (E & E 1987).

Standard E & E decontamination procedures were followed during the collection of all soil samples. The procedures included the cleaning of all equipment (e.g. trowels, hand auger, stainless steel bowl, and stainless steel spoons) with a solution of detergent (Alconox) and distilled water and triple-rinsing with distilled water before the collection of each sample (E & E 1987). All soil samples were packaged and shipped in accordance with U.S. EPA-required procedures.

As directed by U.S. EPA, all soil samples were analyzed using the U.S. EPA Contract Laboratory Program (CLP).

4. ANALYTICAL RESULTS

This section presents results of the chemical analysis of samples collected by FIT during the SSI of the FMC site. All samples were analyzed for volatile organics, semivolatile organics, pesticides/polychlorinated biphenyls (PCBs), metals, and cyanide. Complete chemical analysis results of FIT-collected soil samples are provided in Table 4-1.

Quantitation/detection limits used in the analysis of FIT-collected samples are provided in Appendix E.

The analytical data from the chemical analysis of FIT-collected samples for this SSI have been reviewed under the direction of U.S. EPA for validity; the review has been approved by U.S. EPA. The analytical data have also been reviewed by FIT for usability. Any additions, deletions, or changes resulting from review of the data have been incorporated in the chemical analysis results tables presented in this section.

Table 4-1
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED SOIL SAMPLES
FOR THE FMC SITE SSI

Sample Collection Information and Parameters	S1	S2	S3	S4	S5	S6	S7	S8	S9
Date	02/28/91	02/28/91	02/28/91	02/28/91	02/28/91	02/28/91	02/28/91	02/28/91	02/28/91
Time	1210	1230	1230	1310	1415	1445	1450	1505	1530
CLP Organic Traffic Report Number	EMW72	EMW73	EMW74	EMW75	EMW76	EMW77	EMW78	EMW79	EMW80
CLP Inorganic Traffic Report Number	MEMW58	MEMW59	MEMW60	MEMW61	MEMW62	MEMW63	MEMW64	MEMW65	MEMW66
<u>Compound Detected</u> (values in ug/kg)									
<u>Volatile Organics</u>									
methylene chloride	--	--	--	9 J	25 J	--	11 J	12 J	9 J
acetone	130 J	12 J	--	--	--	--	--	--	--
carbon disulfide	2 J	--	--	--	--	--	--	--	14 J
chloroform	--	--	2 J	--	1 J	--	--	--	--
1,1,1-trichloroethane	--	2 J	--	--	--	--	--	--	--
benzene	2 J	--	--	--	--	--	--	--	--
toluene	3 J	15 J	--	--	7 J	--	--	4 J	--
ethylbenzene	--	--	--	--	--	--	--	26 J	--
xylenes (total)	--	--	--	--	12 J	--	--	--	--
<u>Semivolatile Organics</u>									
2-methylnaphthalene	--	--	--	--	130 J	--	--	--	--
phenanthrene	--	--	--	230 J	92 J	130 J	250 J	--	--
fluoranthene	--	--	--	550 J	400 J	200 J	550 J	--	--
pyrene	--	--	--	440 J	310 J	160 J	470 J	--	--
benzo[a]anthracene	--	--	--	260 J	140 J	--	260 J	--	--
chrysene	--	--	--	290 J	160 J	--	330 J	--	--
benzo[b]fluoranthene	--	--	--	210 J	110 J	--	240 J	--	89 J
benzo[k]fluoranthene	--	--	--	340 J	120 J	--	230 J	--	100 J
benzo[a]pyrene	--	--	--	240 J	91 J	--	200 J	--	--
indeno[1,2,3-cd]pyrene	--	--	--	160 J	--	--	110 J	--	--
benzo[g,h,i]perylene	--	--	--	170 J	--	--	100 J	--	--
<u>Pesticides/PCBs</u>									
4,4'-DDE	--	--	130J	--	--	--	--	--	8.4 J
4,4'-DDD	--	--	59J	--	--	--	--	--	25 J

-- Not detected.

Table 4-1 (Cont.)

Sample Collection Information and Parameters	S1	S2	S3	S4	S5	S6	S7	S8	S9
<u>Analyte Detected</u> (values in mg/kg)									
aluminum	24,300	19,400	26,800	21,900	18,300	24,200	17,600	19,800	20,500
antimony	R	9.7 BNJ	R	R	R	13.6 BNJ	R	R	R
arsenic	7.8 N*J	7.9 N*J	7.6 Ns*J	31.1 N*J	10.7 Ns*J	11.1 Ns*J	9.1 N*J	11.4 N*J	9.1Ns*J
barium	174	125	132	124	76.5	167	94.9	97.3	116
beryllium	2.3	0.98 B	1.4	1.1 B	1.5	2.3	1.7	1.4	1.4
cadmium	1.3	—	—	—	0.95 B	—	—	—	—
calcium	50,800 *J	51,800 *J	6,460 *J	11,800 *J	18,100*J	67,600 *J	20,700 *J	5,410 *J	25,700 *J
chromium	32.0	28.3	29.5	33.4	32.6	34.4	25.4	28.2	28.5
cobalt	13.2	12.7	7.8 B	12.1	11.4 B	12.4 B	15.2	12.3 B	10.3 B
copper	41.4	28.5	26.4	26.5	31.1	27.0	23.3	27.3	22.1
iron	36,900	29,600	22,500	31,300	29,400	29,300	45,400	34,000	28,600
lead	11.4 *J	21.3 s*J	23.6 s*J	29.2 *J	11.0 s*J	33.7 *J	15.0 *J	17.7 *J	25.8 s*J
magnesium	10,700	17,100	4,200	8,660	6,190	14,600	7,220	5,400	5,570
manganese	1,700 N*J	418 N*J	189 N*J	389 N*J	569 N*J	2,830 N*J	755 N*J	279 N*J	416 N*J
nickel	34.3	37.0	29.2	53.5	39.7	33.0	33.7	42.1	26.8
potassium	3,880 *	5,730 *	3,320 *	3,910 *	4,660 *	3,980 *	3,490 *	3,610 *	3,790 *
selenium	1.7 NsJ	—	—	—	3.9 NsJ	1.9 NsJ	—	—	—
sodium	385 B	396 B	198 B	203 B	226 B	454 B	202 B	—	—
thallium	—	—	—	—	1.5 B	—	—	—	—
vanadium	56.8 *	50.6 *	49.0 *	47.9 *	113 *	50.5 *	48.0 *	46.4 *	39.6 *
zinc	233	74.5	62.1	122	107	95.6	98.9	104	94.1

— Not detected.

COMPOUND QUALIFIER

DEFINITION

INTERPRETATION

J

Indicates an estimated value.

Compound value may be semiquantitative.

ANALYTE QUALIFIERS

DEFINITION

INTERPRETATION

S

Analysis by Method of Standard Additions.

Value is quantitative.

N

Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.

Value may be quantitative or semi-quantitative.

*

Duplicate value outside QC protocols which indicates a possible matrix problem.

Value may be quantitative or semiquantitative.

B

Value is real, but is above instrument DL and below CRDL.

Value may be quantitative or semi-quantitative.

J

Value is above CRDL and is an estimated value because of a QC protocol.

Value may be semiquantitative.

R

Results are unusable due to a major violation of QC protocols.

Analyte value is not usable.

5. DISCUSSION OF MIGRATION PATHWAYS

5.1 INTRODUCTION

This section presents discussions of data and information pertaining to potential migration pathways and targets of TCL compounds and TAL analytes that are possibly attributable to the FMC site.

The five migration pathways of concern discussed are groundwater, surface water, air, fire and explosion, and direct contact.

5.2 GROUNDWATER

In accordance with the U.S. EPA-approved work plan, no groundwater samples were collected by FIT.

TCL compounds and TAL analytes were detected in on-site soil samples at levels above background, including acetone (130J ug/kg in S1), 4,4'-DDD (59 ug/kg in S3), 4,4'-DDE (130 ug/kg in S3), xylene (12J ug/kg in S5), antimony (13.6BNJ mg/kg in S6), manganese (2,830N*J mg/kg in S6), and selenium (3.9NsJ mg/kg in S5) (see Table 4-1 for definition and interpretation of qualifiers). Acetone is a common chemical constituent of the solvents used in painting, and xylene is a waste generated on-site (Molnar 1991). Therefore presence of these compounds in the soil samples can be attributable to the on-site activities.

There is a potential for TCL compounds and TAL analytes to migrate from the FMC site to groundwater in the vicinity of the site, based on the following information.

- o TCL compounds and TAL analytes were detected at levels above background in on-site soil samples.
- o There is no engineered liner or containment system for the stormwater pond (Molnar 1991).

The potential for TCL compounds and TAL analytes to migrate from the site to groundwater is also based on the geology of the area of the site. The geology of the area consists of Wisconsinan lacustrine deposits overlying Devonian bedrock. These deposits consist of commonly laminated silt and clay, covered by marl and peat at certain locations, and underlain by till (Ohio Department of Natural Resources [ODNR] 1961).

Based on area well logs, the surface soil consists of 5 to 10 inches of silty clay loam (see Appendix F for on-site soil boring logs). Stiff brown and gray clay, along with some sand and silt and traces of gravel, are present beneath the surface soil. This layer is 5 to 6 feet thick. This layer is underlain by a 2- to 5-foot thick layer of very stiff brown and gray silt with some clay and traces of sand and gravel. Beneath this layer lies bedrock that consists of a weathered black and gray shale formation at a depth of 13 to 15 feet, containing water at varying depths. This formation is of Devonian age, and Oletangy and Ohio type (ODNR 1981).

Area well logs indicate that private wells in the area of the site draw water from the lacustrine deposits and from the bedrock. Well logs do not indicate that continuous confining layer exists within a 3-mile radius of the site. There, the lacustrine deposits and the bedrock are considered to be hydraulically connected and together form a single aquifer of concern (AOC). The depth to the AOC is 20 feet (see Appendix G for well logs of the area of the site). Based on area topography, the direction of groundwater flow is presumed to be toward the north.

Approximately 17 residential wells are located within a 3-mile radius of the site (Jones 1990). These wells are primarily used for watering lawns and gardens. These wells typically yield water at rates of 1 to 3 gallons per minute. Because of the low yield of the wells and the presence of high amounts of sulphur compounds in the water, people do not depend on groundwater as a source of drinking water in this area (Rodriguez 1991). The Avon Lake Water Department (ALWD), the Lorain Water Department (LWD), and the Rural Lorain County Water Authority (RLCWA) supply drinking water to the area. LWD and ALWD draw water from surface water intakes located in Lake Erie.

5.3 SURFACE WATER

In accordance with the U.S. EPA-approved work plan, no surface water samples were collected during the SSI of the FMC site. There is no potential for TCL compounds or TAL analytes to migrate from the site via surface water runoff, based on the following information.

- o The site is surrounded by railroad tracks and streets, which act as barriers to the migration of surface water.
- o Lake Erie, the body of surface water nearest to the site, is located approximately 9/10 miles from the site, and is separated from the site by roads and city streets.

However, there is a potential for TCL compounds and TAL analytes to migrate to Lake Erie via an underground storm sewer system. Lake Erie is used as a source of drinking water by ALWD (Knieper 1990). The surface water intake for this system is approximate 1 2/10 miles north of the site. ALWD supplies water to approximately 80,000 persons living in Avon Lake and nearby areas. The city of Sheffield Lake, which is located within a 3-mile radius of the site, obtains part of its water supply from ALWD and part from LWD. The surface water intake for the LWD system is located approximately 5 miles from the site. RLCWA supplies water to the site and surrounding area (RLCWA 1983). RLCWA purchases its water from ALWD and LWD. RLCWA serves a population of 13,000 persons (Jody 1991). Thus, the potential surface water target population for the FMC site is approximately 93,000 persons.

Lake Erie is used for recreational purposes. The Black River is located approximately 2 7/10 miles southwest of the site. There is no potential for TCL compounds and TAL analytes to migrate toward the Black River because the topography in the area of the site slopes northward. There are no wetlands or federally designated endangered species habitats within a 1-mile radius of the site.

5.4 AIR

A release of TCL compounds or TAL analytes to the air was not documented during the SSI of the FMC site. During the reconnaissance inspection, FIT site entry equipment (organic vapor analyzer, explosimeter, colorimetric monitoring tubes for hydrogen cyanide) did not detect levels that deviated from background levels at the site

(E & E 1987). In accordance with the U.S. EPA-approved work plan, further air monitoring was not conducted by FIT.

A potential does not exist for TCL compounds and TAL analytes to migrate from the site via windblown particulates because all areas of the site are paved or covered with grass.

5.5 FIRE AND EXPLOSION

According to FIT observations and site-entry equipment readings, no apparent potential for fire or explosion existed at the FMC site at the time of the SSI. There is no record of an incident of fire or explosion at the site (Molnar, Straub, and Waskiewicz 1991). Numerous attempts to obtain information regarding fires and/or explosions at the FMC site were unsuccessful.

5.6 DIRECT CONTACT

According to federal, state, and local file information reviewed by FIT, observations made during the SSI, and the interview with site representatives, no incidents of direct contact with TCL compounds or TAL analytes at the FMC site have been documented (Molnar, Straub, and Waskiewicz 1991). There is no possibility for area residents to come into direct contact with TCL compounds and TAL analytes present at the site because the site is fenced on all sides and a guard is present at the main entrance at all times. However, there is a potential that the on-site workers may come into direct contact with TCL compounds or TAL analytes at the site because TCL compounds and TAL analytes were detected at levels above background in on-site surface soil samples. Approximately 1,900 persons work on-site (Molnar, Straub, and Waskiewicz 1991).

6. REFERENCES

Bergman, Mark, April 25, 1985, Environmental Scientist, Division of Solid and Hazardous Waste Management, OEPA, letter, to Tom Dunning, Ford, Avon Lake, Ohio, Re: site inspection on March 27, 1985.

E & E, 1987, Quality Assurance Project Plan Region V FIT Conducted Site Inspections, Chicago, Illinois.

Ford, November 1981, Hazardous Waste Supplement Amendment to Spill Prevention and Control and Countermeasure Plan.

Jody, July 26, 1991, receptionist, RLCWA, Lagrange, Ohio, telephone conversation, contacted by Santosh Sharma of CCJM.

Jones, Wayne, March 7, 1990, Hydrogeologist, Groundwater Division, ODNR, telephone conversation, contacted by Nahid Brown of CCJM.

Kausek, Sandra, February 25, 1985, Environmental Scientist, Pretreatment Unit, OEPA, Twinsburg, Ohio, letter, to Matt Tim, Ford, Avon Lake, Ohio.

Knieper, John W., January 24, 1990, Director, ALWD, Avon Lake, Ohio, telephone conversation, contacted by Mike Duet of CCJM.

Merta, F. J., July 25, 1979, Plant Manager, Ford, Avon Lake, Ohio, letter, to Kenneth A. Shultz, OEPA, Twinsburg, Ohio, Re: E-coat resin spill on July 13, 1979.

Merta, F. J., September 24, 1979a, Plant Manager, Ford, Avon Lake, Ohio, letter, to Kenneth A. Shultz, OEPA, Twinsburg, Ohio, Re: oil spill on April 24, 1979.

Merta, F. J., September 26, 1979b, Plant Manager, Ford, Avon Lake, Ohio, letter, to Kenneth A. Shultz, OEPA, Twinsburg, Ohio, Re: naphtha spill on August 9, 1979.

Merta, F. J., July 22, 1981, Plant Manager, Ford, Avon Lake, Ohio, letter, to Wayne S. Nichols, OEPA, Twinsburg, Ohio, Re: withdrawal of hazardous waste permit application.

Molnar, Anne, May 3, 1991, Plant Engineer, Ford, Avon Lake, Ohio, letter, to Nahid Brown of CCJM.

Molnar, Anne, B., Ron Straub, and Kathy Waskiewicz, February 28, 1991, Plant Engineer, Ford; Plant Manager, Ford; Environmental Engineer, Ford, Principal Plant, Dearborn, Michigan, respectively, interview, conducted by Nahid Brown, Mathew Joseph, and Charles Onyezia of CCJM.

ODNR, 1961, Glacial Map of Ohio, prepared by Richard P. Goldthwait, George W. White, and Janes L. Forsyth.

-----, 1981, Geologic Map of Ohio, prepared by J.A. Bownocker, Division of Geologic Survey, Columbus, Ohio.

Rodriguez, Angel R., June 9, 1991, Director of Environmental Health, Lorain Health Department, telephone conversation, contacted by Santosh Sharma of CCJM.

RLCWA, March 1983, Water Supply Map, Lorain County, Ohio.

Sanford, J. H., January 15, 1985, Works Manager, Ford, Avon Lake, Ohio, letter, to M. B. Tin, Pretreatment Unit, OEPA, Twinsburg, Ohio, Re: semi-annual pretreatment report.

Takacs, Helen, February 24, 1982, Environmental Scientist, Division of Hazardous Material Management, OEPA, letter, to Jim Davis, Ford, Avon Lake, Ohio, Re: site inspection on February 10, 1982.

U.S. EPA, May 6, 1985, Potential Hazardous Waste Site Preliminary Assessment, for the FMC site, U.S. EPA ID: OHD020626669, prepared by Pam Wicks, Division of Solid Hazardous Waste Management, OEPA.

-----, February 12, 1988, Office Solid Waste and Emergency Response, Pre-Remedial Strategy for Implementing SARA, Directive number 9345.2-01, Washington, D.C.

Wiacek, J. J., July 19, 1985, Works Manager, Ford, Avon Lake, Ohio, letter, to M. B. Tin, Pretreatment Unit, OEPA, Twinsburg, Ohio, Re: semi-annual pretreatment report.

APPENDIX A

SITE 4-MILE RADIUS MAP

APPENDIX B

U.S. EPA FORM 2070-13



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH 020626669

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)

FORD MOTOR CO OHIO TRUCK PLT (SIA)

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER

650 MILLER ROAD

03 CITY

AVON LAKE

04 STATE

OH

05 ZIP CODE

44012

06 COUNTY

LORAIN

07 COUNTY CODE

093

08 CONG DIST

13

09 COORDINATES

LATITUDE 41° 24' 15" N LONGITUDE 82° 03' 45" W

10 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION

2 / 28 / 91
MONTH DAY YEAR

02 SITE STATUS

☒ ACTIVE
☐ INACTIVE

03 YEARS OF OPERATION

1975 PRESENT
BEGINNING YEAR ENDING YEAR

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☒ B. EPA CONTRACTOR C.C. JOHNSON & MALHOTRA, P.C. ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ☐ E. STATE ☐ F. STATE CONTRACTOR ☐ G. OTHER

05 CHIEF INSPECTOR

NAHID BROWN

06 TITLE

GEOLOGIST

07 ORGANIZATION

CCJM

08 TELEPHONE NO.

(312) 621-3944

09 OTHER INSPECTORS

MATHEW JOSEPH

10 TITLE

CIVIL ENGINEER

11 ORGANIZATION

CCJM

12 TELEPHONE NO.

(312) 621-3944

CLIFF FLOKZAK

CHEMIST

E&E

(312) 663-9415

TANVEER ANJUM

CIVIL ENGINEER

CCJM

(312) 621-3944

CHARLES DNYEZIA

GEOLOGIST

CCJM

(312) 621-3944

13 SITE REPRESENTATIVES INTERVIEWED

14 TITLE

15 ADDRESS

16 TELEPHONE NO

ANNE MOLNAR

PLANT ENGR.

650 MILLER ROAD
AVON LAKE, OH-44012

(216) 933-1332

KATHY WASKIEWICZ

ENVIRONMENTAL
ENGINEER

15201 CENTURY DRIVE
DEARBORN, MI-48120

(313) 594-7752

RON STRAUB

PLANT ENG.
MANAGER

650 MILLER ROAD
AVON LAKE, OH-44012

(216) 933-1347

17 ACCESS GAINED BY

☒ PERMISSION
☐ WARRANT

18 TIME OF INSPECTION

8:50 A.M. TO
3:30 P.M.

19 WEATHER CONDITIONS

SNOW, 25-45°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT

ROD BEAHLIS

02 OF (Agency/Organization)

NEDO, OEPA

03 TELEPHONE NO.

(216) 425-9471

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM

SANTOSH K. SHARMA

05 AGENCY

FIT
U.S. EPA

06 ORGANIZATION

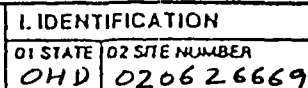
CCJM

07 TELEPHONE NO.

(312) 621-3944

08 DATE

7 / 4 / 91
MONTH DAY YEAR





POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

L IDENTIFICATION

01 STATE 02 SITE NUMBER
04D 020626669

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: 0

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☒ POTENTIAL

☐ ALLEGED

REFER TO SECTION 5-2 OF NARRATIVE

01 ☒ B. SURFACE WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: 93,000

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☒ POTENTIAL

☐ ALLEGED

REFER TO SECTION 5-3 OF NARRATIVE

01 ☐ C. CONTAMINATION OF AIR

03 POPULATION POTENTIALLY AFFECTED: 0

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

REFER TO SECTION 5-4 OF NARRATIVE

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS

03 POPULATION POTENTIALLY AFFECTED: 0

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

REFER TO SECTION 5-5 OF NARRATIVE

01 ☒ E. DIRECT CONTACT

03 POPULATION POTENTIALLY AFFECTED: 1900

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☒ POTENTIAL

☐ ALLEGED

REFER TO SECTION 5-6 OF NARRATIVE

01 ☒ F. CONTAMINATION OF SOIL

03 AREA POTENTIALLY AFFECTED: 412
(ACRES)

02 ☒ OBSERVED (DATE: 2/28/91)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

REFER TO SECTION 4 & 5 OF NARRATIVE

01 ☐ G. DRINKING WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: 0

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

REFER SECTION 5-2 and 5-3 OF NARRATIVE

01 ☒ H. WORKER EXPOSURE/INJURY

03 WORKERS POTENTIALLY AFFECTED: 1900

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☒ POTENTIAL

☐ ALLEGED

REFER SECTION 5-6 OF NARRATIVE

01 ☒ I. POPULATION EXPOSURE/INJURY

03 POPULATION POTENTIALLY AFFECTED: 93,000

02 ☐ OBSERVED (DATE: _____)

04 NARRATIVE DESCRIPTION

☒ POTENTIAL

☐ ALLEGED

REFER SECTION 5 OF NARRATIVE



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

L IDENTIFICATION
01 STATE 02 SITE NUMBER
OHD 020626669

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL ☐ ALLEGED

THERE IS A POTENTIAL FOR DAMAGE TO FLORA, BECAUSE
OF SOIL CONTAMINATION ON-SITE.

01 ☒ K. DAMAGE TO FAUNA

04 NARRATIVE DESCRIPTION (Include name(s) of species)

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL ☐ ALLEGED

THERE IS A POTENTIAL FOR DAMAGE TO FAUNA, BECAUSE OF
SOIL CONTAMINATION ON-SITE.

01 ☒ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL ☐ ALLEGED

THERE IS A POTENTIAL FOR CONTAMINATION OF FOOD
CHAIN BECAUSE OF SOIL CONTAMINATION ON-SITE.

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES

(Spills/Leaks/Sludging tanks, Leaking drums)

03 POPULATION POTENTIALLY AFFECTED: 93,000

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

PRESENCE OF TCL COMPOUNDS AND TAL ANALYTES IN ON-SITE SOIL
SAMPLES.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY

04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL ☐ ALLEGED

None, and there is no potential for damage to off-site

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs

04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL ☒ ALLEGED

ACCORDING TO FORD, THERE WAS ALLEGED CONTAMINATION
OF SEWERS AS A RESULT OF SPILL CASES IN 1979.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING

04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL ☐ ALLEGED

None, and no potential.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL OR ALLEGED HAZARDS

None.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 93,000

IV. COMMENTS

See Section 2, 4 and 5 OF THE NARRATIVE.

V. SOURCES OF INFORMATION (Cite specific references, e.g., State files, sample analysis reports)

OEPA - FILE INFORMATION

FIT - SSI OBSERVATION.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OHD 02062669

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input type="checkbox"/> A. NPDES				
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS	UNKNOWN	UNKNOWN	UNKNOWN	Since 1981
<input type="checkbox"/> F. SPOC PLAN	UNKNOWN	UNKNOWN		Since 1981
<input type="checkbox"/> G. STATE (Specify)				
<input type="checkbox"/> H. LOCAL (Specify)	MF-101	3/1/1989	3/1/1994	Permit to discharge City of Lakes
<input type="checkbox"/> I. OTHER (Specify)	02-4669	10/10/1989		Permit for Pretreatment.
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply)	05 OTHER
<input checked="" type="checkbox"/> A. SURFACE IMPOUNDMENT	2 (CLOSED)	UNKNOWN	<input type="checkbox"/> A. INCINERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	12
<input checked="" type="checkbox"/> C. DRUMS, ABOVE GROUND	UNKNOWN	UNKNOWN	<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND	3,110,500	GALLONS	<input type="checkbox"/> D. BIOLOGICAL	
<input checked="" type="checkbox"/> E. TANK, BELOW GROUND	24000	GALLONS	<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL			<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input checked="" type="checkbox"/> H. OTHER WASTEWATER PRE-TREATMENT (Specify)	
<input type="checkbox"/> I. OTHER (Specify)				

07 COMMENTS

REFER SECTION 2 AND 3 OF THE NARRATIVE.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)
☐ A. ADEQUATE, SECURE ☒ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

THE AREA WHERE DRUMS ARE PLACED, IS DIKED AND COVERED WITH CONCRETE.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO
02 COMMENTS

REFER SECTION 5-6 OF THE NARRATIVE

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FORD FILE INFORMATION.
FIT SSI OBSERVATION.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

04D 020626669

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY
(Check as applicable)

SURFACE

WELL

COMMUNITY

A. ☒

B. ☐

NON-COMMUNITY

C. ☐

D. ☒

02 STATUS

ENDANGERED

AFFECTED

MONITORED

A. ☐

B. ☐

C. ☒

D. ☐

E. ☐

F. ☐ UNKNOWN

03 DISTANCE TO SITE

A. 0.9 (mi)

B. 73.0 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING

☐ B. DRINKING

(Other sources available)

☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION

(Limited other sources available)

☒ D. NOT USED, UNUSEABLE

COMMERCIAL, INDUSTRIAL, IRRIGATION
(No other water sources available)

02 POPULATION SERVED BY GROUND WATER

0

03 DISTANCE TO NEAREST DRINKING WATER WELL

73 (mi)

04 DEPTH TO GROUNDWATER

20

(ft)

05 DIRECTION OF GROUNDWATER FLOW

N

06 DEPTH TO AQUIFER
OF CONCERN

20

(ft)

07 POTENTIAL YIELD
OF AQUIFER

2×10^{-3}

(gpd)

08 SOLE SOURCE AQUIFER

☐ YES ☒ NO

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

REFER SECTION 5-2 OF NARRATIVE.

10 RECHARGE AREA

☒ YES

☐ NO

LOW RECHARGING BECAUSE OF
COMMENTS LOW PERMEABILITY OF TOP SOIL,
CLAY LAYER AND SHALE FORMATION

11 DISCHARGE AREA

☐ YES

☒ NO

COMMENTS

No streams or any other
outlets to groundwater.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION
(DRINKING WATER SOURCE)

☐ B. IRRIGATION, ECONOMICALLY
IMPORTANT RESOURCES

☐ C. COMMERCIAL, INDUSTRIAL

☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:

AFFECTED

DISTANCE TO SITE

LAKE ERIE

☐

0.9

(mi)

BLACK RIVER

☐

2.7

(mi)

☐

(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE

TWO (2) MILES OF SITE

THREE (3) MILES OF SITE

A. 2470

B. 5025

C. 8435

NO. OF PERSONS

NO. OF PERSONS

NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION

< 0.1

(mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE

1769

04 DISTANCE TO NEAREST OFF-SITE BUILDING

0.1

(mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

THE FACILITY IS LOCATED IN A RESIDENTIAL/AGRICULTURAL/
INDUSTRIAL/COMMERCIAL AREA.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
OH D 020626669

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☒ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-2} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-8} cm/sec) ☒ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☐ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK

15-50 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

UNKNOWN (ft)

05 SOIL pH

UNKNOWN

06 NET PRECIPITATION

4.5 (in)

07 ONE YEAR 24 HOUR RAINFALL

2.15 (in)

08 SLOPE

SITE SLOPE
0.05%

DIRECTION OF SITE SLOPE

N

TERRAIN AVERAGE SLOPE

0.04%

09 FLOOD POTENTIAL

UNKNOWN

SITE IS IN _____ YEAR FLOODPLAIN

10

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY N/A

11 DISTANCE TO WETLANDS (3 acre minimum)

ESTUARINE

OTHER

A. N/A (mi)

B. > 1 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

> 1 (mi)

ENDANGERED SPECIES: UNKNOWN

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS, NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

A. 1 (mi)

B. 0.1 (mi)

C. UNKNOWN (mi) D. 1.5 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

REFER TO APPENDIX: A

VII. SOURCES OF INFORMATION (See specific references, e.g., site files, sample analysis, reports)

U.S. EPA FILE INFORMATION

FIT SSE

U.S. DEPT. OF COMMERCE, CLIMATIC MAPS..



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
OH 020626669

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	9	TCL - NET, BARTLETT, IL. TAL - DATACHEM, SALT LAKE CITY UTAH.	NOW AVAILABLE
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
OVA	NO READINGS DEVIATING FROM BACKGROUND LEVELS
OXYGEN METER	NO READINGS DEVIATING FROM BACKGROUND LEVELS
RADIATION MONITOR	NO READINGS DEVIATING FROM BACKGROUND LEVELS.
HYDROGEN CYANIDE MONITOR	NO READINGS DEVIATING FROM BACKGROUND LEVELS.
EXPLOSIMETER	NO READING DEVIATING FROM BACKGROUND LEVELS.

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF <u>Ecology & Environment, Inc., Chicago, IL.</u> <small>(Name of organization or individual)</small>
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS <u>E & E Inc., Chicago, Illinois.</u>

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

None

VI. SOURCES OF INFORMATION (List specific references, e.g., state files, sample analysis, reports)

FIT SITE INSPECTION, 2/28/91



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
OH 020626667

II. CURRENT OWNER(S)				PARENT COMPANY (if applicable)			
01 NAME FORD MOTOR CO.		02 D+B NUMBER UNKNOWN		08 NAME FORD MOTOR CO.		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 650 MILLER ROAD		04 SIC CODE 3713		10 STREET ADDRESS (P.O. Box, RFD #, etc.) 15201 Century Drive		11 SIC CODE	
05 CITY AVON LAKE		06 STATE OH	07 ZIP CODE 44012	12 CITY DEARBORN		13 STATE MI	14 ZIP CODE 48120
01 NAME N/A		02 D+B NUMBER		08 NAME N/A		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER		08 NAME		09 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
III. PREVIOUS OWNER(S) (Use most recent first)				IV. REALTY OWNER(S) (if applicable: Use most recent first)			
01 NAME FRUEHAUF CORP.		02 D+B NUMBER		01 NAME UNKNOWN		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 650 MILLER ROAD		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY AVON LAKE		06 STATE OH	07 ZIP CODE 44012	05 CITY		06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE
01 NAME		02 D+B NUMBER		01 NAME		02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	05 CITY		06 STATE	07 ZIP CODE
V. SOURCES OF INFORMATION (Cite specific references, e.g., title files, sample analysis, reports)							

FIT SSI INTERVIEW, 2/28/91



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

L IDENTIFICATION

01 STATE 02 SITE NUMBER
OHJ 020626669

II. CURRENT OPERATOR (Provide if different from owner)

OPERATOR'S PARENT COMPANY (if applicable)

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
		FORD MOTOR CO.	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
		15201 Century Drive	
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
		DEARBORN	MI 48120
08 YEARS OF OPERATION	09 NAME OF OWNER		

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

PREVIOUS OPERATORS' PARENT COMPANIES (if applicable)

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
FRUEHAUF CORP.		UNKNOWN	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
650 MILLER ROAD			
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
AVON LAKE	OH 44012		
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		
29	UNKNOWN		

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
UNKNOWN			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		

01 NAME	02 D+B NUMBER	10 NAME	11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	14 CITY	15 STATE 16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD		

IV. SOURCES OF INFORMATION (City specific references, e.g., state files, sample analysis, reports)

FIT SITE INTERVIEW, 2/28/91



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
OH 020626669

II. ON-SITE GENERATOR

01 NAME FORD MOTOR CO.	02 D+B NUMBER UNKNOWN
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 650 MILLER ROAD	04 SIC CODE 3713
05 CITY AVON LAKE	06 STATE 07 ZIP CODE OH 44012

III. OFF-SITE GENERATOR(S)

01 NAME None	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME None	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., RCRA file, facility records, interviews)

FORD FILE INFORMATION



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

L IDENTIFICATION

01 STATE 02 SITE NUMBER
OHD 02062669

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ D. SPILLED MATERIAL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ E. CONTAMINATED SOIL REMOVED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ F. WASTE REPACKAGED
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ G. WASTE DISPOSED ELSEWHERE
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ H. ON SITE BURIAL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ I. IN SITU CHEMICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ J. IN SITU BIOLOGICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ K. IN SITU PHYSICAL TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ L. ENCAPSULATION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ M. EMERGENCY WASTE TREATMENT
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ N. CUTOFF WALLS
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ P. CUTOFF TRENCHES/SUMP
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A

01 ☐ Q. SUBSURFACE CUTOFF WALL
04 DESCRIPTION

02 DATE _____

03 AGENCY _____

N/A



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
OH 020626669

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ S. CAPPING/COVERING

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ T. BULK TANKAGE REPAIRED

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ U. GROUT CURTAIN CONSTRUCTED

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ V. BOTTOM SEALED

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ W. GAS CONTROL

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ X. FIRE CONTROL

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ Y. LEACHATE TREATMENT

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ Z. AREA EVACUATED

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ 1. ACCESS TO SITE RESTRICTED

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ 2. POPULATION RELOCATED

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

N/A

01 ☐ 3. OTHER REMEDIAL ACTIVITIES

02 DATE _____

03 AGENCY _____

04 DESCRIPTION

NONE

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT SITE INFORMATION, 2/28/91
SITE OWNER INFORMATION



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

D1 STATE	D2 SITE NUMBER
OH	020626669

II. ENFORCEMENT INFORMATION

D1 PAST REGULATORY/ENFORCEMENT ACTION YES ☐ NO ☒

D2 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

SEE SECTION 2 OF NARRATIVE.

III. SOURCES OF INFORMATION (Cite specific references, e.g., State files, laboratory analyses, reports)

FIT SITE INSPECTION, 2/28/91

c

APPENDIX D
FIT SITE PHOTOGRAPHS

SITE NAME: FORD MOTOR COMPANY - OHIO TRUCK PLT. PAGE 1 OF 9

U.S. EPA ID: OHDO20626669 TDD: F05-9007-012

PAN: FOHO646 SA

DATE: 2/28/91

TIME: 1210

DIRECTION OF
PHOTOGRAPH:
SWWEATHER
CONDITIONS:
SNOW

25-45°F

PHOTOGRAPHED BY:
NAHID BROWNSAMPLE ID
(if applicable):
S1

DESCRIPTION:

CLOSE-UP VIEW OF SAMPLE LOCATION S1, AT THE SITE OF
OLD POND.

DATE: 2/28/91

TIME: 1210

DIRECTION OF
PHOTOGRAPH:
SWWEATHER
CONDITIONS:
SNOW

25-45°F

PHOTOGRAPHED BY:
NAHID BROWNSAMPLE ID
(if applicable):
S1

DESCRIPTION:

PERSPECTIVE VIEW OF SAMPLE LOCATION S1.

SITE NAME: FORD MOTOR COMPANY - OHIO TRUCK PLT. PAGE 2 OF 9

U.S. EPA ID: OHDO20626669 TDD: F05-9007-012

PAN: FOHO646SA

DATE: 2/28/91TIME: 1230DIRECTION OF
PHOTOGRAPH:EWEATHER
CONDITIONS:SNOW25-45°F

PHOTOGRAPHED BY:

NAHID BROWNSAMPLE ID
(if applicable):S2

DESCRIPTION:

CLOSE-UP VIEW OF SAMPLE LOCATION S2, NEAR PAINT
SHOP.DATE: 2/28/91TIME: 1230DIRECTION OF
PHOTOGRAPH:E/NEWEATHER
CONDITIONS:SNOW25-45°F

PHOTOGRAPHED BY:

NAHID BROWNSAMPLE ID
(if applicable):S2

DESCRIPTION:

PERSPECTIVE VIEW OF SAMPLE LOCATION S2.

SITE NAME: FORD MOTOR COMPANY OHIO TRUCK PLT

PAGE 3 OF 9

U.S. EPA ID: OHDO20626669

TDD: FD5-9007-012

PAN: FOHO646SA

DATE: 2/28/91TIME: 1230DIRECTION OF
PHOTOGRAPH:
NEWEATHER
CONDITIONS:
SNOW25-45°FPHOTOGRAPHED BY:
NAHID BROWNSAMPLE ID
(if applicable):
S3DESCRIPTION: CLOSE-UP VIEW OF SAMPLE LOCATION S3, NEAR
LOADING DOCK AREA SOUTH OF PAINT SHOP.DATE: 2/28/91TIME: 1230DIRECTION OF
PHOTOGRAPH: NEWEATHER
CONDITIONS: SNOW, 25-45°FPHOTOGRAPHED BY: NAHID BROWNSAMPLE ID
(if applicable): S3DESCRIPTION: PERSPECTIVEVIEW OF SAMPLELOCATION S3.

SITE NAME: FORD MOTOR COMPANY - OHIO TRUCK PLT. PAGE 4 OF 9

U.S. EPA ID: OHDO20626669 TDD: F05-9007-012

PAN: FOHO646 SA

DATE: 2/28/91

TIME: 1310

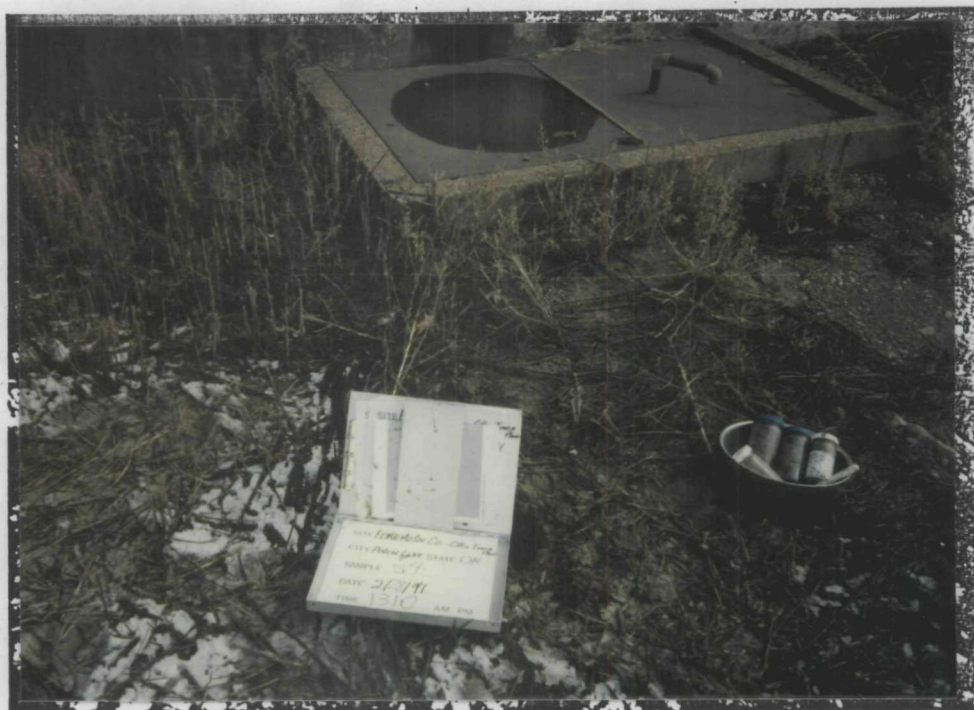
DIRECTION OF
PHOTOGRAPH:

E

WEATHER
CONDITIONS:

SNOW

25-45°F

PHOTOGRAPHED BY:
NAHID BROWNSAMPLE ID
(if applicable):
S4

DESCRIPTION:

CLOSE-UP VIEW OF SAMPLE LOCATION S4.

DATE: 2/28/91

TIME: 1310

DIRECTION OF
PHOTOGRAPH:

E

WEATHER
CONDITIONS:

SNOW

25-45°F

PHOTOGRAPHED BY:
NAHID BROWNSAMPLE ID
(if applicable):
S4

DESCRIPTION:

PERSPECTIVE VIEW OF SAMPLE LOCATION S4.

SITE NAME: FORD MOTOR COMPANY - OHIO TRUCK PLT. PAGE 5 OF 9

U.S. EPA ID: OHDO20626669 TDD: F05-9007-012

PAN: FOHO646SA

DATE: 2/28/91

TIME: 1415

DIRECTION OF
PHOTOGRAPH:
NEWEATHER
CONDITIONS:
SNOW

25-45°F

PHOTOGRAPHED BY:
NAHID BROWNSAMPLE ID
(if applicable):
S5

DESCRIPTION:

CLOSE-UP VIEW OF SAMPLE LOCATION S5, FORMER LAGOON
AREA.

DATE: 2/28/91

TIME: 1415

DIRECTION OF
PHOTOGRAPH:
SWWEATHER
CONDITIONS:
SNOW

25-45°F

PHOTOGRAPHED BY:
NAHID BROWNSAMPLE ID
(if applicable):
S5

DESCRIPTION:

PERSPECTIVE VIEW OF SAMPLE LOCATION S5.

SITE NAME: FORD MOTOR COMPANY - OHIO TRUCK PLT. PAGE 6 OF 9

U.S. EPA ID: OHDO20626669 TDD: F05-9007-012

PAN: FOH0646 SA

DATE: 2/28/91TIME: 1445DIRECTION OF
PHOTOGRAPH:NWEATHER
CONDITIONS:SNOW25-45°FPHOTOGRAPHED BY:
NAHID BROWNSAMPLE ID
(if applicable):
S 6

DESCRIPTION:

CLOSE-UP VIEW OF SOIL SAMPLE LOCATION S6, NEAR
CONSTRUCTION DEBRIS PILE.DATE: 2/28/91TIME: 1445DIRECTION OF
PHOTOGRAPH:SWWEATHER
CONDITIONS:SNOW25-45°FPHOTOGRAPHED BY:
NAHID BROWNSAMPLE ID
(if applicable):
S 6

DESCRIPTION:

PERSPECTIVE VIEW OF SOIL SAMPLE LOCATION S6.

SITE NAME: FORD MOTOR COMPANY - OHIO TRUCK PLT. PAGE 7 OF 9

U.S. EPA ID: OHDO20626669 TDD: F05-9007-012

PAN: FOHO6465A

DATE: 2/28/91

TIME: 1450

DIRECTION OF
PHOTOGRAPH:

N

WEATHER
CONDITIONS:

SNOW

25-45°F

PHOTOGRAPHED BY:

NAHID BROWN

SAMPLE ID

(if applicable):

S7



DESCRIPTION:

CLOSE-UP VIEW OF SOIL SAMPLE LOCATION S7, SOUTH
OF LAGOON AREA.

DATE: 2/28/91

TIME: 1450

DIRECTION OF
PHOTOGRAPH:

N.W

WEATHER
CONDITIONS:

SNOW

25-45°F

PHOTOGRAPHED BY:

NAHID BROWN

SAMPLE ID

(if applicable):

S7



DESCRIPTION:

PERSPECTIVE VIEW OF SOIL SAMPLE LOCATION S7.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: FORD MOTOR COMPANY OHIO TRUCK PLT

PAGE 8 OF 9

U.S. EPA ID: OHDO20626669 TDD: F05-9007-012

PAN: F0406465A

DATE: 2/28/91

TIME: 1505

DIRECTION OF
PHOTOGRAPH:
SEWEATHER
CONDITIONS: ;
SNOW

25-45°F

PHOTOGRAPHED BY:
NAHID BROWNSAMPLE ID
(if applicable):
S8

DESCRIPTION: CLOSE-UP VIEW OF SOIL SAMPLE LOCATION

S8, BACKGROUND FACING PAINT SHOP.

DATE: 2/28/91

TIME: 1505

DIRECTION OF
PHOTOGRAPH: NWWEATHER
CONDITIONS: SNOW, 25-45°F

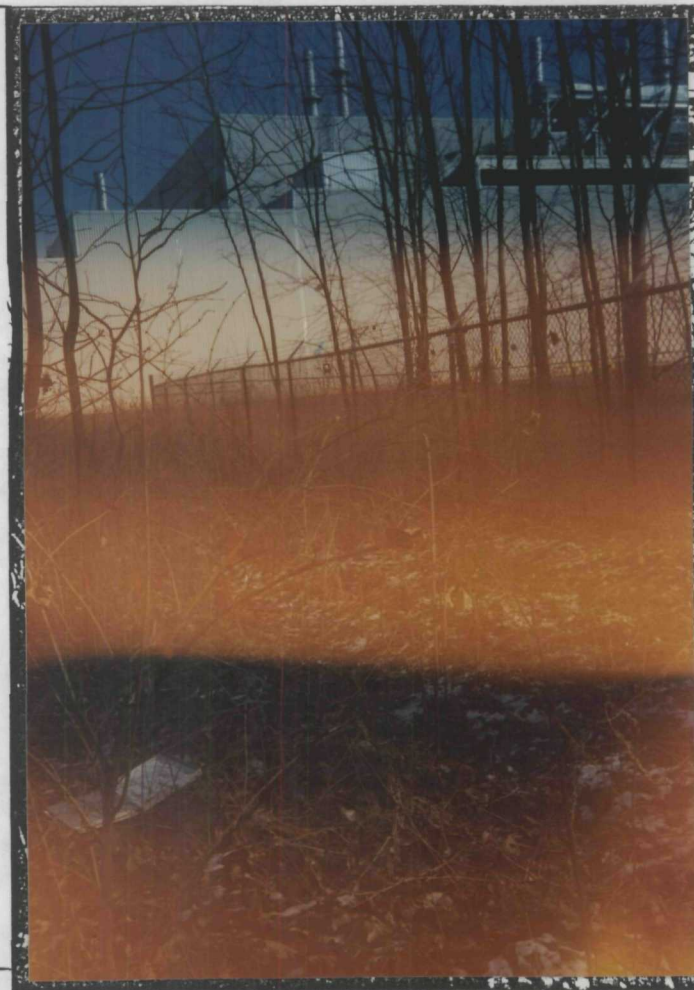
PHOTOGRAPHED BY: NAHID BROWN

SAMPLE ID
(if applicable): S8

DESCRIPTION: PERSPECTIVE

VIEW OF SOIL SAMPLE

LOCATION S8.



SITE NAME: FORD MOTOR COMPANY OHIO TRUCK PLT

PAGE 9 OF 9

U.S. EPA ID: OHDO20626669 TDD: F05-9007-012

PAN: F0H0646SA

DATE: _____

TIME: _____

DIRECTION OF
PHOTOGRAPH:
_____WEATHER
CONDITIONS: ,

_____PHOTOGRAPHED BY:
_____SAMPLE ID
(if applicable):
_____DESCRIPTION: _____

_____S9
Photograph did not develop.

DATE: _____

TIME: _____

DIRECTION OF
PHOTOGRAPH:
_____WEATHER
CONDITIONS:

_____PHOTOGRAPHED BY:
_____SAMPLE ID
(if applicable):
_____DESCRIPTION: _____

_____S9
Photograph did not develop.

APPENDIX E

U.S. EPA TARGET COMPOUND LIST AND
TARGET ANALYTE LIST
QUANTITATION/DETECTION LIMITS

ADDENDUM A

ROUTINE ANALYTICAL SERVICES
CONTRACT REQUIRED DETECTION AND QUANTITATION LIMITS

Contract Laboratory Program
Target Compound List
Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Chloromethane	74-87-3	10 ug/L	10 ug/Kg
Bromomethane	74-83-9	10	10
Vinyl chloride	75-01-4	10	10
Chloroethane	75-00-3	10	10
Methylene chloride	75-09-2	5	5
Acetone	67-64-1	10	5
Carbon disulfide	75-15-0	5	5
1,1-dichloroethene	75-35-4	5	5
1,1-dichloroethane	75-34-3	5	5
1,2-dichloroethene (total)	540-59-0	5	5
Chloroform	67-66-3	5	5
1,2-dichloroethane	107-06-2	5	5
2-butanone (MEK)	78-93-3	10	10
1,1,1-trichloroethane	71-55-6	5	5
Carbon tetrachloride	56-23-5	5	5
Vinyl acetate	108-05-4	10	10
Bromodichloromethane	75-27-4	5	5
1,2-dichloropropane	78-87-5	5	5
cis-1,3-dichloropropene	10061-01-5	5	5
Trichloroethene	79-01-6	5	5
Dibromochloromethane	124-48-1	5	5
1,1,2-trichloroethane	79-00-5	5	5
Benzene	71-43-2	5	5
Trans-1,3-dichloropropene	10061-02-6	5	5
Bromoform	75-25-2	5	5
4-Methyl-2-pentanone	108-10-1	10	10
2-Hexanone	591-78-6	10	10
Tetrachloroethene	127-18-4	5	5
Toluene	108-88-3	5	5
1,1,2,2-tetrachloroethane	79-34-5	5	5
Chlorobenzene	108-90-7	5	5
Ethyl benzene	100-41-4	5	5
Styrene	100-42-5	5	5
Xylenes (total)	1330-20-7	5	5

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Phenol	108-95-2	10 ug/L	330 ug/Kg
bis(2-Chloroethyl) ether	111-44-4	10	330
2-Chlorophenol	95-57-8	10	330
1,3-Dichlorobenzene	541-73-1	10	330
1,4-Dichlorobenzene	106-46-7	10	330
Benzyl Alcohol	100-51-6	10	330
1,2-Dichlorobenzene	95-50-1	10	330
2-Methylphenol	95-48-7	10	330
bis(2-Chloroisopropyl) ether	108-60-1	10	330
4-Methylphenol	106-44-5	10	330
N-Nitroso-di-n-dipropylamine	621-64-7	10	330
Hexachloroethane	67-72-1	10	330
Nitrobenzene	98-95-3	10	330
Isophorone	78-59-1	10	330
2-Nitrophenol	88-75-5	10	330
2,4-Dimethylphenol	105-67-9	10	330
Benzoic Acid	65-85-0	50	1600
bis(2-Chloroethoxy) methane	111-91-1	10	330
2,4-Dichlorophenol	120-83-2	10	330
1,2,4-Trichlorobenzene	120-82-1	10	330
Naphthalene	91-20-3	10	330
4-Chloroaniline	106-47-8	10	330
Hexachlorobutadiene	87-68-3	10	300
4-Chloro-3-methylphenol	59-50-7	10	330
2-Methylnaphthalene	91-57-6	10	330
Hexachlorocyclopentadiene	77-47-4	10	330
2,4,6-Trichlorophenol	88-06-2	10	330
2,4,5-Trichlorophenol	95-95-4	50	1600
2-Chloronaphthalene	91-58-7	10	330
2-Nitroaniline	88-74-4	50	1600
Dimethylphthalate	131-11-3	10	330
Acenaphthylene	208-96-8	10	330
2,6-Dinitrotoluene	606-20-2	10	330
3-Nitroaniline	99-09-2	50	1600
Acenaphthene	83-32-9	10	330
2,4-Dinitrophenol	51-28-5	50	1600
4-Nitrophenol	100-02-7	50	1600
Dibenzofuran	132-64-9	10	330
2,4-Dinitrotoluene	121-14-2	10	330
Diethylphthalate	84-66-2	10	330
4-Chlorophenyl-phenyl ether	7005-72-3	10	330

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SLUDGE SEDIMENT
Fluorene	86-73-7	10 ug/L	330 ug/Kg
4-Nitroaniline	100-01-6	50	1600
4,6-Dinitro-2-methylphenol	534-52-1	50	1600
N-nitrosodiphenylamine	86-30-6	10	330
4-Bromophenyl-phenylether	101-55-3	10	330
Hexachlorobenzene	118-74-1	10	330
Pentachlorophenol	87-86-5	50	1600
Phenanthrene	85-01-8	10	330
Anthracene	120-12-7	10	330
Di-n-butylphthalate	84-74-2	10	330
Fluoranthene	206-44-0	10	330
Pyrene	129-00-0	10	330
Butylbenzylphthalate	85-68-7	10	330
3,3'-Dichlorobenzidine	91-94-1	20	660
Benzo(a)anthracene	56-55-3	10	330
Chrysene	218-01-9	10	330
bis(2-Ethylhexyl)phthalate	117-81-7	10	330
Di-n-octylphthalate	117-84-0	10	330
Benzo(b)fluoranthene	205-99-2	10	330
Benzo(k)fluoranthene	207-08-9	10	330
Benzo(a)pyrene	50-32-8	10	330
Indeno(1,2,3-cd)pyrene	193-39-5	10	330
Dibenz(a,h)anthracene	53-70-3	10	330
Benzo(g,h,i)perylene	191-24-2	10	330

Table A
Contract Laboratory Program
Target Compound List
Pesticide and PCB Quantitation Limits

COMPOUND	CAS #	WATER	SOIL
			SEDIMENT SLUDGE
alpha-BHC	319-84-6	0.05 ug/L	8 ug/Kg
beta-BHC	319-85-7	0.05	8
delta-BHC	319-86-8	0.05	8
gamma-BHC (Lindane)	58-89-9	0.05	8
Heptachlor	76-44-8	0.05	8
Aldrin	309-00-2	0.05	8
Heptachlor epoxide	1024-57-3	0.05	8
Endosulfan I	959-98-8	0.05	8
Dieldrin	60-57-1	0.10	16
4,4'-DDE	72-55-9	0.10	16
Endrin	72-20-8	0.10	16
Endosulfan II	33213-65-9	0.10	16
4,4'-DDD	72-54-8	0.10	16
Endosulfan sulfate	1031-07-8	0.10	16
4,4'-DDT	50-29-3	0.10	16
Hethoxychlor (Mariate)	72-43-5	0.5	80
Endrin ketone	53494-70-5	0.10	16
alpha-Chlordane	5103-71-9	0.5	80
gamma-chlordane	5103-74-2	0.5	80
Toxaphene	8001-35-2	1.0	160
AROCLOR-1016	12674-11-2	0.5	80
AROCLOR-1221	11104-28-2	0.5	80
AROCLOR-1232	11141-16-5	0.5	80
AROCLOR-1242	53469-21-9	0.5	80
AROCLOR-1248	12672-29-6	0.5	80
AROCLOR-1254	11097-69-1	1.0	160
AROCLOR-1260	11096-82-5	1.0	160

Table A
(Cont.)

CONTRACT LABORATORY PROGRAM
TARGET ANALYTE LIST
INORGANIC DETECTION LIMITS

Compound	Procedure	Water ($\mu\text{g/L}$)	Soil Sediment Sludge (mg/kg)
aluminum	ICP	200	40
antimony	furnace	60	2.4
arsenic	furnace	10	2
barium	ICP	200	40
beryllium	ICP	5	1
cadmium	ICP	5	1
calcium	ICP	5,000	1,000
chromium	ICP	10	2
cobalt	ICP	50	10
copper	ICP	25	5
iron	ICP	100	20
lead	furnace	3	1
magnesium	ICP	5,000	1,000
manganese	ICP	15	3
mercury	cold vapor	0.2	0.008
nickel	ICP	40	8
potassium	ICP	5,000	1,000
selenium	furnace	5	1
silver	ICP	10	2
sodium	ICP	5,000	1,000
thallium	furnace	10	2
tin	ICP	40	8
vanadium	ICP	50	10
zinc	ICP	20	4
cyanide	color	10	2

PROPOSED ADDITIONS, FRUEHAUF CORP. PLANT, AVON LAKE, OHIO

DATE STARTED: 12-11-72

DATE COMPLETED: 12-11-72

BOWSER - MORNER

LOG OF BORING NO. 1A

PROPOSED ADDITIONS, FRUEHAULT CORP. PLANT, AVON LAKE, OHIO

BORING LOCATION As Shown on Boring Location Plan

DATE STARTED: 12-11-72

SURFACE ELEVATION Not Taken

DATE COMPLETED: 12-11-72

STRATUM Depth	DESCRIPTION OF MATERIAL	SAMPLE NO & TYPE	SAMPLE DEPTH	BLOWS PER 6" ON SAMPLER	"N" BLOWS /FT OF CORE REC
0.0'	(Fill) Sand, Gravel and Cinders				
1.0'	(Original) Very Stiff Brown and Gray Clay, some Silt, some Sand, trace of Gravel - Damp	1A	1.0- 2.5'	6-10-16	26
3.0'		2A	3.5- 5.0'	7-10-17	27
6.0'	Very Stiff Brown and Gray Silt, some Clay, some Sand, trace of Gravel - Moist (Becomes Hard at 8.5')	3A	6.0- 7.5'	3-7-11	18
10.0'		4A	8.5-10.0'	11-18-22	40
12.0'	Soft Gray Shale				
15.0'		5A	14.5-15.0'	100	100+
	Bottom of Boring at 15.0'				

METHOD Hollow Auger

TECHNICIAN EM-JC

JOB NO 87665

WATER OBSERVATIONS

INITIAL DEPTH None

COMPLETION DEPTH None

DEPTH AFTER hrs

TYPE SAMPLER

X A SPLIT SPOON

 B

 C SHELBY TUBE

LOG OF BORING NO. 2

PROPOSED ADDITIONS, FRUEHAUF CORP. PLANT, AVON LAKE, OHIO

BORING LOCATION As Shown on Boring Location Plan

DATE STARTED: 12-11-72

SURFACE ELEVATION: Not Taken

DATE COMPLETED: 12-11-72

STRATUM Depth	DESCRIPTION OF MATERIAL	SAMPLE NO & TYPE	SAMPLE DEPTH	BLOWS PER 6" ON SAMPLER	"N" BLOWS 1 FT OR CORE REC
0.0'	(Fill) Sand, Gravel and Cinders				
1.0'	(Original) Hard Brown Clay, some Silt, some Sand, trace of Gravel, trace of Rock Fragments, trace of Organic Material - Moist (Becomes Very Stiff at 3.5')	1A	1.0- 2.5'	9-16-20	36
5.0'		2A	3.5- 5.0'	5-6-14	20
		3A	6.0- 7.5'	6-11-18	29
0.0'		4A	8.5-10.0'	7-12-16	28
11.5'	Soft Gray Weathered Shale				
5.0'		5A	13.5-15.0'	18-24-50	74
	Bottom of Boring at 15.0'				

METHOD Hollow Auger

TECHNICIAN BW-JC

JOB NO 87665

WATER OBSERVATIONS

INITIAL DEPTH NONE
COMPLETION DEPTH NONE
DEPTH AFTER NONE

TYPE SAMPLER

X A. SPLIT SPOON
 B
 C. SHELBY TUBE

BOWSER - MORNER

LOG OF BORING NO. 3

PROPOSED ADDITIONS, FRUEHAUF CORP. PLANT, AVON LAKE, OHIO

BORING LOCATION: As Shown on Boring Location Plan

DATE STARTED: 12-12-72

SURFACE ELEVATION: Not Taken

DATE COMPLETED: 12-12-72

STRATUM Depth	DESCRIPTION OF MATERIAL	SAMPLE NO. & TYPE	SAMPLE DEPTH	BLOWS PER 6" ON SAMPLER	"N" BLOW /FT OR CORE RE
0.0'	Topsoil				
0.3'					
	Brown and Gray Clay, some Silt, some Sand, trace of Gravel - Damp	1A	1.0- 2.5'	6-16-24	40
4.5'					
5.0'	Very Stiff Gray Clay and Silt, trace of Sand - Moist	1C	4.0- 6.0'		19"
		2A	6.0- 7.5'	6-8-12	18
		3A	8.5-10.0'	3-7-11	18
10.0'					
		4A	13.5-15.0'	4-6-12	18
15.0'					
16.0'	Soft Gray Weathered Shale				
		5A	18.5-19.0'	100/3"	100+
20.0'					
		6A	24.5-25.0'	100/3"	100+
25.0'	Bottom of Boring at 25.0'				

METHOD Hollow Auger

WATER OBSERVATIONS

TYPE SAMPLER:

TECHNICIAN BW-JC

INITIAL DEPTH 0.5'

☒

A. SPLIT SPOON

JCS NO. 37563

COMPLETION DEPTH None

☐

B

DEPTH AFTER WRS

☒

C. SHELBY TUBE

LOG OF BORING NO. 3A

PROPOSED ADDITIONS, FRUEHAUF CORP. PLANT, AVON LAKE, OHIO

BORING LOCATION: As Shown on Boring Location Plan

DATE STARTED: 12-11-72

SURFACE ELEVATION: Not Taken

DATE COMPLETED: 12-11-72

STRATUM Depth	DESCRIPTION OF MATERIAL	SAMPLE NO & TYPE	SAMPLE DEPTH	BLOWS PER 8" ON SAMPLER	"N" BLOWS /FT OR CORE REC.
0.0'	Topsoil				
0.3'					
	Hard Brown and Gray Clay, some Silt, some Sand, trace of Gravel, with Rock Fragments - Damp	1A	1.0- 2.5'	12-13-30	48
		2A	3.5- 5.0'	13-27-50	77
5.0'					
5.5'					
	Very Stiff Gray Clay, some Silt, trace of Sand - Moist	3A	6.0- 7.5'	9-10-13	23
		4A	8.5-10.0'	6-10-14	24
10.0'	Bottom of Boring at 10.0'				

METHOD Hollow Auger

WATER OBSERVATIONS

TYPE SAMPLER

TECHNICIAN: BW-JC

INITIAL DEPTH None

X

A. SPLIT SPOON

COMPLETION DEPTH None

—

B

JCS NO: 87665

DEPTH AFTER 24 HRS None

—

C. SHIELBY TUBE

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-28

TE 01515 ±

Project Name Giffels Associates Date of Boring May 3, 1988

Site Ford Motor Company, Ohio Truck Plant Project No. 142-85054

DESCRIPTION	DEPTH	SAMPLE	N	Q _u	Q _p	M _c	REMARKS
SURFACE							
14.0' Black Topsoil, Sand & Gravel, Fill		1AU					
Brn. Silty Clay, Trace Rock Frags., Moist, V/Stiff. (CL)	5	2SS	9-10		3.75		
Gray Silty Clay, Some Shale Frags., Trace Sand, Moist, Stiff. (CL)	10	3SS	6-8		1.75		▼ Encounter @ 7.3'
End of Boring - 10.0'							Completion Dry

DESCRIPTION	DEPTH	SAMPLE	N	Q _u	Q _p	E _c	REMARKS
10.0' Asphalt SURFACE Gravel, Fill							
Gray Silty Clay, Trace Rock Frags., Moist, Stiff. (CL)		1AU					Dry
	5	2SS	3-4		1.0		
Gray Silty Clay, Trace Shale, Frags., Trace Sand, Moist, Stiff. (CL)	10	3SS	7-7		1.75		
End of Boring - 10.0'							

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-30

Project Name Giffels Associates

Date of Boring May 3, 1988

Site Ford Motor Company, Ohio Truck Plant

Project No. 142-85054

DESCRIPTION	DEPTH	SAMPLE	N	Q _u	Q _p	M _c	REMARKS
<u>10.0" Topsoil</u> SURFACE							
Brn. Silty Clay w/Sand, Trace Gravel Trace Cinders, Moist, Stiff to V/ Stiff. Fill. (CL)		1SS	2-2		1.0- 2.25		No Water Encountered
Brn. & Gray Silty Clay, Trace Rock Frgs., Moist, Hard. (CL)	5	2SS	13-19		4.5+		
End of Boring - 10.0'	10	3SS	20-24		4.5		

Professional Service Industries, Inc.

RECORD OF SUBSURFACE EXPLORATION

Boring B-31

Project Name Ohio Truck Plant, Ford Motor Company Date of Boring February 27, 1989

Site Avon Lake, Ohio Project No. 142-85054

DESCRIPTION	DEPTH	SAMPLE	N	Q _u	Q _p	M _c	REMARKS
<u>SURFACE</u>							
Brown Silty Clay, Few Seams of Gray Silty Clay, Some Sand, Few Shale fragments., Moist, V/Stiff. (CL)		1SS	3-3				No Water Encountered
		2SS	4-6				
	5						
	10						
Weathered Gray Shale		50/6"					
		50/1"					
	15	50/1"					
		50/1"					
	20						
Gray Shale	25						Water @ 22.0' 3/1/89
	30						
		50/1"					
	35						
Core Data: Recovery: 93% Longest Piece: 4.0" R.Q.D.: 1%		BNX					
Gray Shale	40						
End of Boring - 40.0'							

APPENDIX F

ON-SITE SOIL BORING LOGS

APPENDIX G

WELL LOGS OF THE AREA OF THE SITE

WELL LOG AND DRILLING REPORT

W1 ORIGINAL

PLEASE USE PENCIL
OR TYPEWRITER

DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCESDivision of Water
1562 W. First Avenue
Columbus, Ohio 43212

non-responsive

County LORAINTownship SHEFFIELD

Section of Township

non-responsive

CONSTRUCTION DETAILS

Casing diameter 5 3/8 Length of casing 23

Type of screen..... Length of screen.....

Type of pump.....

Capacity of pump.....

Depth of pump setting.....

Date of completion.....

WELL LOG*

Formations
Sandstone, shale, limestone,
gravel and clay

From

To

YELLOW CLAY

0 Feet

15 Ft.BLACK SHALE1557GREY SHALE5762DRY HOLESMALL AMOUNT OF GAS AT 57'WELL PULLED & FILLED

BAILING OR PUMPING TEST

Pumping Rate..... G.P.M. Duration of test..... hrs.

Drawdown..... ft. Date.....

Static level-depth to water..... ft.

Quality (clear, cloudy, taste, odor).....

Pump installed by.....

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

N.

non-responsive

S.

See reverse side for instructions

Drilling Firm BERN SCHUSTERDate 11-15-65Address ELYRIASigned B. Schuster

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG AND DRILLING REPORT

W2 ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1500 Dublin Road
Columbus, Ohio

non-responsive

County Lorain Township Sheffield Section of Township _____

non-responsive

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 26
Type of screen _____ Length of screen _____
Type of pump _____
Capacity of pump _____
Depth of pump setting _____
Date of completion 4-24-58

BAILING OR PUMPING TEST

Pumping rate 8 G.P.M. Duration of test _____ hrs.
Drawdown _____ ft. Date _____
Developed capacity _____
Static level—depth to water _____ ft.
Pump installed by _____

WELL LOG

SKETCH SHOWING LOCATION

Formations
Sandstone, shale, limestone,
gravel and clay

From _____ To _____

0 Feet _____ Ft.

Clay _____ 25

Shale _____ 25 90

Water in shale

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

non-responsive

RECEIVED

APR 28 1958

See reverse side for instructions

Drilling Firm H. M. Diederich & Sons Date 4-28-58
Address No. Ridgerville O. Signed Leonard Diederich

WELL LOG AND DRILLING REPORT

W3

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1500 Dublin Road
Columbus, Ohio

non-responsive

County Lorain Township Sheffield Section of Township _____

non-responsive

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 20
Type of screen _____ Length of screen _____
Type of pump _____
Capacity of pump _____
Depth of pump setting _____
Date of completion _____

BAILING OR PUMPING TEST

Pumping rate 10 G.P.M. Duration of test _____ hrs
Drawdown _____ ft. Date _____
Developed capacity _____
Static level—depth to water _____ ft
Pump installed by _____

WELL LOG

Formations
Sandstone, shale, limestone,
gravel and clay

From

To

0 Feet

_____ Ft.

Clay
Shale

6

65

water in shale

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

non-responsive

RECEIVED

Drilling Firm Wm. Friederich & Son
Address 110 Ridgeway

Date 3-7-57Signed Wm. Friederich

WELL LOG AND DRILLING REPORT

W4

PLEASE USE PENCIL
OR TYPEWRITER.
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

non-responsive

County LORAIN Township AVON Section of Township

non-responsive

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing PULLED
Type of screen — Length of screen
Type of pump
Capacity of pump
Depth of pump setting
Date of completion 10-19-59

BAILING OR PUMPING TEST

Pumping rate 1 G.P.M. Duration of test — hrs.
Drawdown 50 ft. Date
Developed capacity 10 P.M. SULPHUR
Static level—depth to water — ft.
Pump installed by —

WELL LOG

SKETCH SHOWING LOCATION

Formations
Sandstone, shale, limestone,
gravel and clay

From To

0 Feet 7 Ft.

CLAY
SAND

7 10

SHALE DARK 10 48

" LIGHT 48 50

WATER AT 20 & 38'

WATER SULPHUR

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

non-responsive

See reverse side for instructions

Drilling Firm BERN SCHUSTERDate 10-19-59Address FLYRIA OSigned B. Schuster

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

W5

255
non-responsive

non-responsive

CONSTRUCTION DETAILS

well #1
Casing diameter $5 \frac{3}{8}$ Length of casing 91
Type of screen Length of screen
Type of pump $5 \frac{3}{8}$ well #2 23
Capacity of pump
Depth of pump setting

PUMPING TEST

Pumping rate G.P.M. Duration of test hrs
Drawdown ft. Date
Developed capacity
Static level—depth to water ft
Pump installed by

WELL LOG

SKETCH SHOWING LOCATION

Formations
Sandstone, shale, limestone,
gravel and clay

From

To

0 Feet

Ft.

well #1

Clay

Shale

14
70

well #2

Clay
Shale

14
60

water in Shale

62.5
14
611

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

non-responsive

See reverse side for instructions

Drilling Firm *Wm. Friedrich & Son*

Address *No. Ridgeville*

Date *8-20-51*

Signed *Wm. Friedrich*

ORIGINAL

**Division of Water
1562 W. First Avenue
Columbus, Ohio 43212**

County LORAIN Township AVON Section of Township _____

non-responsive

CONSTRUCTION DETAILS

- Casing diameter 5 7/8 Length of casing 23
Type of screen — Length of screen —
- Type of pump —
Capacity of pump —
- Depth of pump setting —
Date of completion —

BAILING OR PUMPING TEST

Pumping Rate... 40+ G.P.M. Duration of test... 14 hrs.
Drawdown... 15 ft. Date...
Static level-depth to water... 10' ft.
Quality (clear, cloudy, taste, odor)...
TRACE OF GAS
Pump installed by... OWNER

WELL LOG*

[illegible]

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

non-responsive

See reverse side for instructions

Drilling Firm BERN SCHUSTER

Date 4-29-68

Address ELYRIA O

Signed W. Schuster

*If additional space is needed to complete well log, use next consecutive numbered form.

WEI LOG AND DRILLING REPORT

W7 ORIGINAL

PLEASE USE PENCIL
OR TYPEWRITER
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

non-responsive

County LORAIN Township AVON LAKE Section of Township _____

non-responsive

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing _____
Type of screen _____ Length of screen _____
Type of pump _____
Capacity of pump _____
Depth of pump setting _____
Date of completion _____

BAILING OR PUMPING TEST

Pumping Rate 3 G.P.M. Duration of test 1/2 hrs.
Drawdown 60 ft. Date _____
Static level-depth to water 5 ft.
Quality (clear, cloudy, taste, odor) WASOL DINA 9
CLEARING
Pump installed by _____

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
CLAY	0 Feet	5 Ft.
SHALE LIGHT	5	14
DARK SHALE	14	61
WATER APPROX 39'		
IN SHALE		

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

non-responsive

See reverse side for instructions

Drilling Firm BERN SCHUSTER
Address ELYRIA

Date 7-14-64
Signed B. Schuster

34

non-responsive

AND DRILLING REPORT
State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

NEW8 ORIGINAL
non-responsive

County Torain Township Cavan Section of Township or Lot Number Cavan

non-responsive

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 10
Type of screen Length of screen
Type of pump
Capacity of pump
Depth of pump setting

PUMPING TEST

Pumping rate G.P.M. Duration of test
Drawdown ft. Date
Developed capacity
Static level—depth to water
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet Ft.
Clay		5
Black Shale	5	50
water in Shale		
(5)		

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

non-responsive

See reverse side for instructions

Drilling Firm Wm. Friederich & Son
Address N. Ridgeville O

Date 6-27-51
Signed Wm. Friederich

38

WELL LOG AND DRILLING REPORT

W9

ORIGINAL

PLEASE USE PENCIL
OR TYPEWRITER

DEPARTMENT OF NATURAL RESOURCES

Division of Water

1562 W. First Avenue
Columbus, Ohio 43212

non-responsive

County LORAIN Township AVON Section of Township _____

non-responsive

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing _____

Type of screen _____ Length of screen _____

Type of pump SUB

Capacity of pump _____

Depth of pump setting 85'Date of completion 7-19-66

BAILING OR PUMPING TEST

Pumping Rate 3 G.P.M. Duration of test 1 hr.

Drawdown _____ ft. Date _____

Static level-depth to water 11' ft.

Quality (clear, cloudy, taste, odor) _____

Pump installed by NO PUMP CLEARING
PUMP LOWERED 42'

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From 0 Feet	To Ft.
WELL DRILLED DEEPER FOR MORE RESERVE		
LIGHT SHALE	40	45
RED "	45	100
WATER IN STONE		
APPROX 20' 3 GPM		
4" LINER 40 - 100'		
NO WATER BELOW 41		

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

N.

non-responsive

W.

See reverse side for instructions

Drilling Firm BERN SCHUSTERDate 7-19-66Address ELYRIASigned B. Schuster

*If additional space is needed to complete well log, use next consecutive numbered form

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non-responsive

WELL LOG AND DRILLING REPORT


W10 ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

non-responsive

County CLAY Township AVON Section of Township
or Lot Number

non-responsive

CONSTRUCTION DETAILS			PUMPING TEST	
Casing diameter	Length of casing	—	Pumping rate	G.P.M. Duration of test
Type of screen	Length of screen	—	Drawdown	ft. Date
Type of pump			Developed capacity	
Capacity of pump			Static level—depth to water	<u>dry</u>
Depth of pump setting			Pump installed by	
WELL LOG			SKETCH SHOWING LOCATION	
Formations Sandstone, shale, limestone, gravel and clay	From	To	Locate in reference to numbered State Highways, St. Intersections, County roads, etc.	
<u>CLAY</u>	0 Feet	8 Ft.	<div data-bbox="941 1008 1599 1858" data-label="Text"> <h1>non-responsive</h1> </div>	
<u>BLACK SHALE</u>	8	80		
<u>DRY HOLE</u>				
				

See reverse side for instructions

Drilling Firm L. SCHUSTER & SON
Address ELYRIA OH

Date 9-7-55
Signed B. Schuster

non-responsive

WELL LOG AND DRILLING REPORT

W11 ORIGINAL

State of Ohio
OHIO WATER RESOURCES BOARD
Department of Public Works
53 E. Broad St., Columbus 15, Ohio

non-responsive

Ship AVON Section of Township
or Lot Number

non-responsive

CONSTRUCTION DETAILS

PUMPING TEST

Casing diameter 5 7/8 Length of casing 10
Type of screen NO. 10 Length of screen
Type of pump
Capacity of pump
Depth of pump setting

Pumping rate G.P.M. Duration of test
Drawdown ft. Date
Developed capacity
Static level of completed well 5 ft.
Pump installed by

WELL LOG

SKETCH SHOWING LOCATION

Formations Sandstone, shale, limestone, gravel and clay	From	To
CLAY	0 Feet	7 Ft.
SHALE, DARK	7	45
WATER IN SHALE		
5		

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

non-responsive

See reverse side for instructions

Drilling Firm L. SCHUSTER & SON

Date 1 - 19 - 50

Address ELYRIA OH

Signed B. Schuster

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